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TAGS: ENRG KNNP IAEA AORC TRGY
SUBJECT: IAEA: LETTER RECEIVED FROM IAEA REGARDING VOLUNTARY CONTRIBUTION OF USD 500,000 TO SUPPORT NUCLEAR ENERGY ACTIVITIES

¶1. U.S. Mission received a letter from the IAEA dated October 30, 2008, which we conveyed initially by e-mail.

Begin text of letter:

Sir,

I have the honour to refer to my letter dated 2008-06-26 informing you of the IAEA's acceptance of your Government's voluntary contribution of USD 500,000 for 2008 to support the IAEA's nuclear energy activities.

Over the past few years there has been a considerable increase in the number of countries expressing interest in a first nuclear power plant. The IAEA has been able to respond to the needs of these countries in a timely manner due to extrabudgetary contributions from inter alia the United States of America. This correspondence serves to provide you with a brief status report on the projects for which US funds were provided in 2007, as well as to propose activities for the use of the US contribution received in 2008.

With the U.S. contribution of USD 500,000 in 2007, we have completed a publication entitled "Evaluation of National Nuclear Infrastructure Development Status" (NG-T-3.2), which is designed to accompany the guide published last year, i.e. "Milestones in the Development of a National Nuclear Infrastructure" (NG-G-3.1). We are nearing completion of a publication on the "Responsibilities and Competencies of a Nuclear Energy Programme Implementing Organization (NEPIO)" to provide further information on how to integrate various stakeholders into the early planning for a nuclear power programme. These two publications (NE series technical reports) will be the main subject of a Technical meeting/Workshop on 'Evaluation Methodology for Nuclear Power Infrastructure Development' to be held from 10-12 December 2008 at the IAEA's headquarters in Vienna. A review meeting was held in July on a publication tentatively titled "Improving the Prospects of Financing

Nuclear Power Plants," which will be finalized by the end of 2008.

Unless you indicate otherwise, we propose to use the remaining funds

allocated to this activity (approximately EUR 19,000) for follow-on

activities in 2009 related to financing nuclear power plant programmes.
Activities regarding development of a document on site issues and industrial capacity are just getting underway and will continue into

¶2009. More detailed information on the financial aspects of these activities is provided in an attached spreadsheet. In the area of Technology Deployment, the US contribution in 2007 is being used for

the development of a publication reviewing current construction technologies and their application to new nuclear power plant construction. The project will cover technologies that are generally
used for large civil construction projects, not unique to the nuclear
industry or to any specific nuclear plant design.

Regarding the US contribution of USD 500,000 received in 2008, please
find enclosed a list of suggested activities for the use of these funds
as discussed between representatives of the Department of Nuclear Energy and Mr. Alex Burkart, of the US Department of State. We are

proposing activities that support nuclear power infrastructure development and technology deployment in response to the needs of countries planning a new nuclear programme as well as countries

expanding existing nuclear programmes. The proposed technology deployment activities focus on equipment reliability lessons learned,
materials management, and technology improvement for near term plants
to reduce water consumption. We would appreciate receiving your Government's concurrence to utilize the funds indicated for the activities described in the attachment.

I look forward to the fruitful and continuing cooperation between the
Government of the United States of America and the International Atomic
Energy Agency.

Accept, sir, the assurances of my highest consideration.

Y.S. Sokolov
Deputy Director General
Head of the Department of Nuclear Energy

End text of letter

¶2. Per the foregoing letter, following is the list of activities the
IAEA proposes could be financed from the USG CY 2008 contribution.

Text of attachment:

Voluntary Contribution from the USA for 2008 in tbe amount of USD 500
000 (EUR 321 027) for Nuclear Energy Activities.

Possible Topics for US Extra Budgetary Funding

Infrastructure Development Activities (2007 savings: EUR 65,000):

¶1. TM/Workshop on Evaluation Methodology for Infrastructure Development, 10-12 December 2008, Vienna, Austria

This workshop will provide Member States an opportunity to learn how to
evaluate their infrastructure status through a self-assessment or peer

review. It is hoped that the results of the evaluation will inform the nuclear power programme planning process, and allow for more effective development and delivery of technical cooperation projects. The workshop will also provide information on the NEPIO and raise emerging issues regarding infrastructure development. As with previous infrastructure workshops, Member States will be asked to provide their experience and breakout sessions will give them an opportunity to discuss challenges and solutions.

This activity is associated with the development of documents on assessment methodology and NEPIO, and EUR 65 000 in savings from the

2007 contribution for those activities will be used to support the workshop. (No additional 2008 funds are requested for this activity.)

¶2. Develop a document on alternative contracting and ownership policies for nuclear power plants (EUR 70 000)

Build-Own-Operate and Build-Own-Operate-Transfer models, regional approaches and leasing of nuclear power plants have not been used at

all, or not widely in the nuclear industry, despite their successful

application in other segments of the energy sector. Some advantages

associated with the BOO/T concept may be reduced need for human resource development and access to vendor secured financing. Examination of the issues associated with these approaches will further understanding of their current viability, as well as the advantages and disadvantages associated with them. The report will also identify challenges and possible solutions to their more wide-spread use.

Funds are requested to support consultancies, consultants, review meetings and other costs associated with the project. Approximate costs

total EUR 70 000.

¶3. Develop a document on workforce planning to meet the human resource needs associated with the Milestones document (- EUR 90 000)

Human resource development is one of the most critical issues associated with development of a nuclear power programme, especially in a country with little nuclear infrastructure. Identification of the

skills and technical competencies needed by key personnel for planning and implementing such programmes in the stakeholder organizations - industry, NEPIO, regular, owner-operator and others, will help member states understand their human resource needs. This will be coordinated closely with related documents on the higher-level responsibilities and competencies of NEPIO and owner-operator. The document will also identify how these skills can be acquired whether through use of qualified contractors and consultants, or through training and education.

Funds are requested to support consultancies, consultants, review meetings, and other costs associated with the project. Approximate costs total EUR 90 000.

¶4. Management Systems for developing nuclear power programmes (EUR 18 500)

Recent experience of Finland and France have identified the need for

appropriate management systems to be in place prior to issuing requests
for bids and constructing nuclear power plants. The vendor (and all

subcontractors), owner-operator and licensing organization should have
a common understanding of the project, share a safety culture, and
implement management systems. This project will look at lessons learned
from recent experience and extrapolate useful guidance for new or
expanding nuclear programmes.

Funds arc requested to support the effort, especially participation by
developing countries in a technical meeting scheduled for early ¶2009.
Approximate costs total EUR 18 500.

¶5. Vendor issues associated with a first nuclear power plant (EUR 20

000)

In introducing a Nuclear Power Programme, most countries will acquire
facilities and components from a limited number of established
international manufacturers and vendors. However, those facilities or
components are different from those purchased for other industrial
uses, because (a) most of nuclear technology goods are sensitive as

they could have non-peaceful uses (in addition to peaceful uses), (b)
the monetary amount per transaction is comparatively large, and (c)

technical support by vendors and supplier governments, including the

regulator, during the planning, construction, and operation, or in the
long-term, is needed. Furthermore a rapid growth in demand for nuclear
power plants all over the world may cause shortage of supply in the

future. A Technical Meeting will be held with the participation of
vendors, users and related parties for information exchanges with a

view to understanding the issues required for mutual benefit.

Funds are requested from the US and Japan to support a workshop and

associated activities. Approximate funds requested from the US are EUR
20 000.

¶6. Beijing Ministerial conference (EUR 15 000)

Funds are requested to support the full participation by developing

countries in the International Ministerial Conference on Nuclear Energy
in Beijing in April 2009. Approximate costs total EUR 15 000.

Research Reactor/Human Resource De'Vel9pment Activity:

¶7. Initial Consultancy on International Remote Nuclear Engineering
Training on a Research Reactor (EUR 7 527)

North Carolina State University's research reactor facility bas
experience in training nuclear engineering students at other U.S.
universities over an internet-based connection. Should this kind of

remote training be available across national borders, it could increase
the opportunities for nuclear engineering students without access to a
research reactor, especially in developing countries. Given the
expected increase in demand for nuclear engineers in countries

expanding and developing nuclear power programmes, demonstrating the feasibility of this kind of arrangement could help address human resource development issues in many regions.

Up to EUR 7 527 in funding is requested to have an initial consultancy to explore the feasibility of an Agency demonstration project. Should the results of the consultancy be favourable, an additional request may be made for the project itself.

Technology Deployment Activities:

¶8. Component and system reliability and new plant development and deployment (EUR 50 000)

A major impact on the economics of nuclear plants is system and component reliability including the impact of materials on reliability. A systematic assessment of these areas as they impact new plant development and deployment will enhance the overall economics and sustainability of new plants. This activity would examine experience regarding component and system reliability and materials behaviour and review how this experience is incorporated into new plant designs. Similar activities are being conducted in individual countries but no significant attempt has been made to integrate worldwide practices in these areas. In particular, it is expected that this activity will integrate ongoing work at EPRI and other research organizations in industrialized countries with experience from developing countries (e.g. Rep. of Korea, China, India) to present a global assessment.

Funds are requested to support the consultancies and review meetings as well as the consultants to produce the first draft report. Approximate funds requested from the US are EUR 50 000.

¶9. Design approaches for efficient water use for new, evolutionary water-cooled NPPs (EUR 50 000)

Efficient use of water is very important in several developing countries considering introduction of nuclear power, and in industrialized countries considering expansion of their nuclear power programme. In some countries, the lack of water has even resulted in shortages in electricity generation. Therefore, the efficient management of water use at new nuclear plant designs is highly important.

This activity would evaluate the use of water for nuclear power plants, and identify means of more efficient use. The approach followed will utilize recent or ongoing industrialized country activities and expand the information to incorporate global and developing country perspectives. The activity would examine strategies for modes of water generation/consumption for NPPs with regard to needs (e.g. service water make-up water, refueling water, and others) and types of cooling systems to assure efficient use water by the plant. For cases in which the nuclear plant is also used for desalination, it would examine the optimal balance between water production and consumption through the applications of water-consumption reduction strategies, and identify areas in design/operation and in waste water treatment which at the

end
will affect the reduction of water consumption and cost for the
overall
power generation.

Funds are requested to support the consultancies and review meetings
as
well as the consultants to produce the first draft report.
Approximate
funds requested from the US are EUR 50 000.

End text of attachment.

¶3. Mission anticipates close coordination with Washington agencies
in
the prioritization of activities as proposed by the IAEA and in
preventing assistance to inappropriate activities such as the
recently
approved Technical Cooperation project SYR/0/020. U.S. Mission POC
is
Nuclear Energy Attache Lee Gebert (GebertLH@state.gov).

SCHULTE